Application No. 09/557,600
Confirmation No. 8246

Office Action Mailing Date: January 18, 2005
Reply Date: March 2, 2005

REMARKS

This application has been reviewed in light of the Office Action mailed on January 18, 2005. Claims 1 and 3-21 are pending in the application with Claims 1, 9, 10 and 12 being in independent form. By the present amendment, Claims 1 2-3, 5-13, and 15-21 have been amended. No new matter or issues are believed to be introduced by the amendments.

(1) In the Office Action, Claims 1, 3-8 and 10-21 were rejected under 35 U.S.C. §112, second paragraph. Claims 1, 10 and 12 have been amended in a manner which is believed to overcome the rejection. Accordingly, withdrawal of the rejection is respectfully requested.

(2) In the Office Action, Claims 1, 3, 4, 9, 10, 12, 13, 14 and 19-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,442,149 issued to Nakano et al. on August 27, 2002 ("Nakano et al.") in view of U.S. Patent No. 6,084,888 issued to Watanabe et al. on July 4, 2000 ("Watanabe et al."); these claims were also rejected by Nakano et al. in view of U.S. Patent No. 5,742,599 issued to Lin et al. on April 21, 1998 ("Lin et al.").

Independent Claims 1, 9, 10 and 12 have been amended to better define Applicant's invention and to overcome the above-noted rejections. In particular, Claims 1, 9, 10 and 12 have been amended to structurally differentiate Applicant's network and wireless

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network node from the disclosure provided by the cited references. Claim 1 has been amended to recite the following:

A network comprising:
several network clusters each network cluster having at least one wireless network node and at least two fixed network nodes, each of the at least two fixed network nodes belonging to a sub-network and exchanging data with other fixed network nodes of the sub-network through wire connections, each of the at least two fixed network nodes and the other fixed network nodes being coupled to a respective wireless network node of the at least one wireless network node via a respective wire interface, each of the at least one wireless network node including a transmitter for the wireless transmission of packets in time slots of given length in a time multiplex process, the variable length of the packets having at least a value which is smaller than the length of a fixedly given time slot,
wherein a transmitting wireless network node of the wireless network nodes is configured for combining several packets into a superpacket and for transmitting the superpacket, to all wireless network nodes authorized for the data transmission via a point-to-multipoint link,
wherein the superpacket is transmitted to all wireless network nodes in one or more time slots of the fixedly given time slots wherein each of the one or more time slots includes at least two packets of the superpacket, and
wherein a receiving wireless network node of the wireless network nodes after reception of the superpacket is designed to extract a packet from the superpacket if the destination of the packet of the superpacket lies in a network cluster corresponding to the receiving wireless network node;
the transmitting wireless network node being configured for segmenting the superpacket into cells when the length of the superpacket exceeds the length of the fixedly given time slots, and for inserting the cells into several time slots, wherein each cell includes at least two packets from the superpacket, and
the receiving wireless network node which receives the cells being configured for forming the superpacket from the cells.

Claim 12 has been amended to include similar limitations as the limitations added to Claim 1 and underlined above.

Claim 9 has been amended to recite the following:

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A wireless network node in a network cluster of a network, the wireless network node including a transmitter designed for the wireless transmission of packets in time slots of given length in a time multiplex process, the variable length of the packets having at least a value which is smaller than the length of a fixedly given time slot,

wherein the wireless network node is designed for combining several packets into a superpacket and for transmitting the superpacket via a point-to-multipoint connection to all wireless network nodes authorized for the data transmission;

wherein the superpacket is transmitted to all wireless network nodes in one or more time slots of the fixedly given time slots wherein each of the one or more time slots includes at least two packets of the superpacket,and

the wireless network node being further configured for segmenting the superpacket into cells when the length of the superpacket exceeds the length of the fixedly given time slot, and for inserting the cells into several time slots so that a receiving wireless network node which receives the cells forms the superpacket from the cells;

the wireless network node further including means for coupling to at least two fixed network nodes via a respective wire interface,

wherein the at least two fixed network nodes belong to a sub-network and exchange data with other fixed network nodes of the sub-network through wire connections.

Claim 10 has been amended to include similar limitations as the limitations added to Claim 9 and underlined above.

None of the cited references taken alone or in any proper combination disclose or suggest the above-underlined limitations which have been added to Claims 1, 9, 10 and 12 to differentiate Applicant's network, wired network nodes and superpacket from the disclosure of the cited references. In particular, none of the references taken alone or in any proper combination disclose or suggest a network comprising several network clusters each having at least one wireless network node and at least two fixed network nodes, each of the at least two fixed network nodes belonging to a sub-network and exchanging data with other fixed network nodes of

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the sub-network through wire connections, each of the at least two fixed network nodes and the other fixed network nodes being coupled to a respective wireless network node of the at least one wireless network node via a respective wire interface, as recited by Applicant's Claim 1.

Further, none of the references taken alone or in any proper combination disclose or suggest a network comprising several network clusters each having at least one wireless network node and at least two fixed network nodes, wherein a superpacket is transmitted to all wireless network nodes in one or more time slots of the fixedly given time slots wherein each of the one or more time slots includes at least two packets of the superpacket, as recited by Applicant's Claim 1.

None of the references taken alone or in any proper combination disclose or suggest a wireless network node in a network cluster of a network where the wireless network node includes a transmitter designed for the wireless transmission of packets in time slots of given length in a time multiplex process, and wherein the wireless network node is designed for combining several packets into a superpacket and for transmitting the superpacket via a point-to-multipoint connection to all wireless network nodes authorized for the data transmission and wherein the superpacket is transmitted to all wireless network nodes in one or more time slots of the fixedly given time slots wherein each of the one or more time slots includes at least two packets of the superpacket, as recited by Applicant's Claim 9.

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Further, none of the references taken alone or in any proper combination disclose or suggest a wireless network node in a network cluster of a network where the wireless network node includes a transmitter designed for the wireless transmission of packets in time slots of given length in a time multiplex process, and wherein the wireless network node further includes means for coupling to at least two fixed network nodes via a respective wire interface, wherein the at least two fixed network nodes belong to a sub-network and exchange data with other fixed network nodes of the sub-network through wire connections, as recited by Applicant's Claim 9.

Additionally, none of the references taken alone or in any proper combination disclose or suggest a wireless network node in a network cluster of a network where the wireless network node includes a receiver designed for the wireless reception of packets in time slots of given length in a time multiplex process, where the wireless network node further includes means for coupling to at least two fixed network nodes via a respective wire interface, and where the wireless network node is further configured to form a superpacket from cells received from a transmitting node which segments the superpacket into the cells when the length of the superpacket exceeds the length of the fixedly given time slot and inserts the cells into several time slots wherein each of the cells includes at least two packets from the superpacket, as recited by Applicant's Claim 10.

Also, none of the references taken alone or in any proper combination disclose

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or suggest a wireless network node in a network cluster of a network where the wireless network node includes a receiver designed for the wireless reception of packets in time slots of given length in a time multiplex process, where the wireless network node further including means for coupling to at least two fixed network nodes via a respective wire interface, wherein the at least two fixed network nodes belongs to a sub-network and exchanges data with other fixed network nodes of the sub-network through wire connections, as recited by Applicant's Claim 10.

Finally, none of the references taken alone or in any proper combination disclose or suggest a network comprising a plurality of network clusters each including a wireless network node and at least two fixed network nodes, each of the at least two fixed network nodes being coupled to a respective wireless network node of the plurality of network clusters via a respective wire interface, each of the at least two fixed network nodes belonging to a sub-network and exchanging data with other fixed network nodes of the sub-network through wire connections, as recited by Applicant's Claim 12.

Further, none of the references taken alone or in any proper combination disclose or suggest a network comprising a plurality of network clusters each having at least one wireless network node and at least two fixed network nodes, wherein a superpacket is transmitted to all wireless network nodes in one or more time slots of the fixedly given time slots wherein each of the one or more time slots includes at least two packets of the superpacket, as recited by Applicant's Claim 12.

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Accordingly, it is believed that Applicant's Claims 1, 9, 10 and 12 recite patentable subject matter, and therefore, withdrawal of the rejections with respect to Claims 1, 9, 10 and 12 and allowance thereof are respectfully requested.

Claims 3, 4, 13, 14 and 19-21 depend from Claims 1, 10 and 12, and therefore include the limitations of Claims 1, 10 and 12. Accordingly, for the same reasons given above for Claims 1, 10 and 12, Claims 3, 4, 13, 14 and 19-21 are believed to contain patentable subject matter. Accordingly, withdrawal of the rejections with respect to Claims 3, 4, 13, 14 and 19-21 and allowance thereof are respectfully requested.

Claims 5, 6, 11, 15 and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nakano et al. in view of Watanabe et al. and Lin et al., and further in view of U.S. Patent No. 5,936,949 issued to Paternak et al. on August 10, 1999; and Claims 7, 8, 17 and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nakano et al. in view of Watanabe et al. and Lin et al., and further in view of U.S. Patent No. 5,940,381 issued to Freeburg et al. on August 17, 1999.

Claims 3, 4, 7, 8, 13, 14 and 17-21 depend from Claims 1, 10 and 12, and therefore include the limitations of Claims 1, 10 and 12. Accordingly, for the same reasons given above for Claims 1, 10 and 12, Claims 3, 4, 7, 8, 13, 14 and 17-21 are believed to contain patentable subject matter. Accordingly, withdrawal of the

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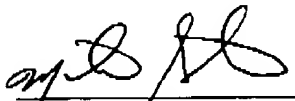
rejections with respect to Claims 3, 4, 7, 8, 13, 14 and 17-21 and allowance thereof are respectfully requested.

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1 and 3-21, are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Dicran Halajian, Esq., Intellectual Property Counsel, Philips Electronics North America, at 914-333-9607.

Respectfully submitted,



Michael A. Scaturro
Reg. No. 51,356
Attorney for Applicant

Mailing Address:
Intellectual Property Counsel
Philips Electronics North America Corp.
P.O. Box 3001
345 Scarborough Road
Briarcliff Manor, New York 10510-8001

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